

FIG. 1

Murata EMI Filter Selection Simulator - [Simulation No. 01]

File(F) Simulation(S) Window(W) Help(H)

Simulation circuit

(1) Input Signal

Clock frequency [MHz] 10

Duty ratio [%] 50

Rise time [nsec] 2

Fall time [nsec] 2

(2) Transmitter IC

Choose from IC list

Specify IC output characteristics by entering LCR values

R [ohm]

L [nH]

C [pF]

(3) EMI Filter (Murata products)

Choose from list

Reset

(4) Transmission line

Specify by features

Enter characteristic impedance value

Disregard transmission line

Line width [mm] 0.1

Substrate thickness [mm] 1.6

Line length [mm] 100

Substrate material Glass epoxy ($\epsilon=4.6$)

Characteristic impedance [ohm] 169.74

(5) Receiver IC

Choose from IC list

Specify IC output characteristics by entering LCR values

R [ohm]

L [nH]

C [pF]

Ro [ohm]

Start simulation

Simulation circuit

(1) Input Signal

(2) Transmitter IC

(3) EMI Filter

(4) Transmission line

(5) Receiver IC

Simulation point

10

12

14

20

22

Start

Murata EMI Filter Se...

16:03

FIG. 2

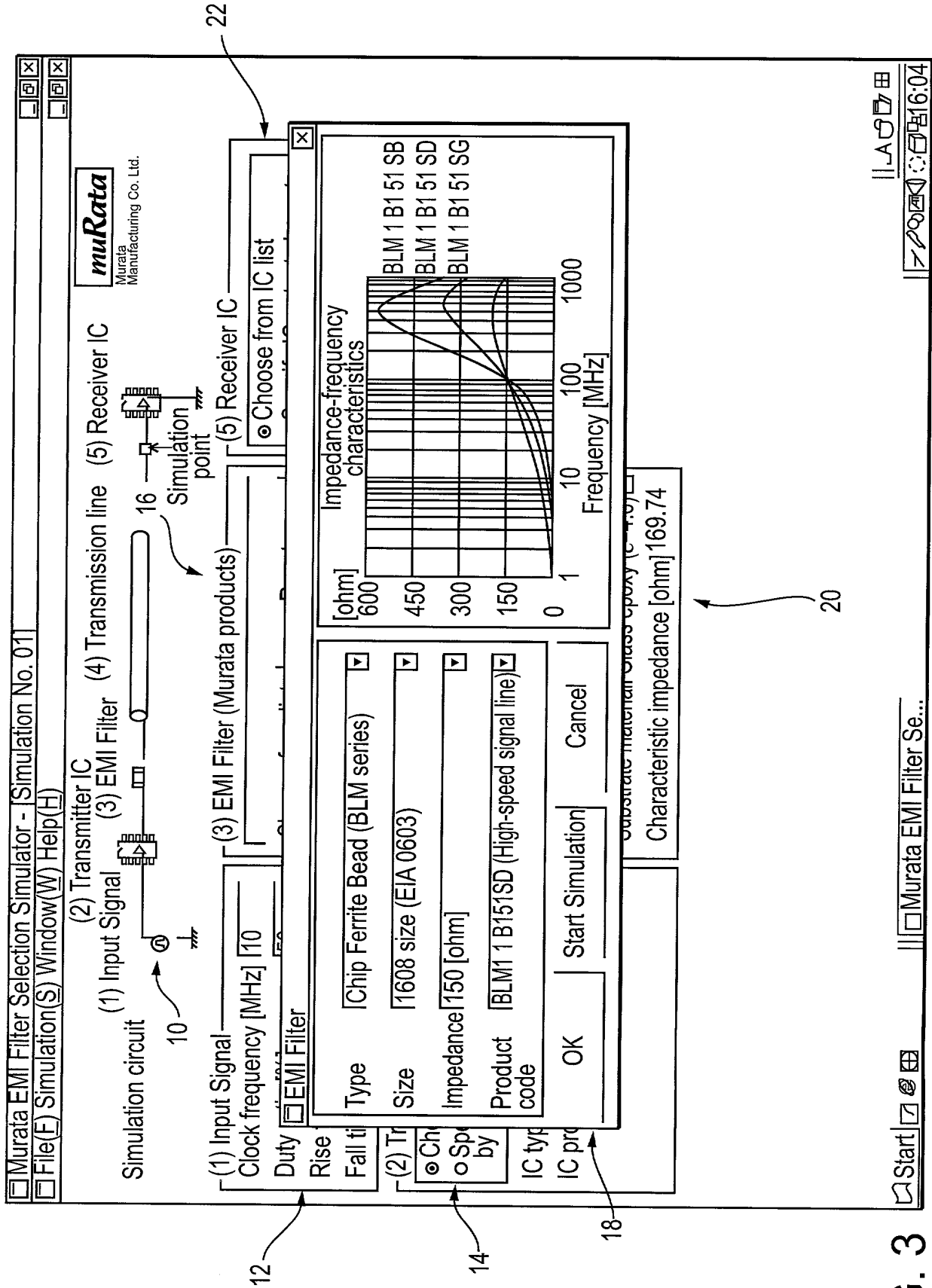


FIG. 3

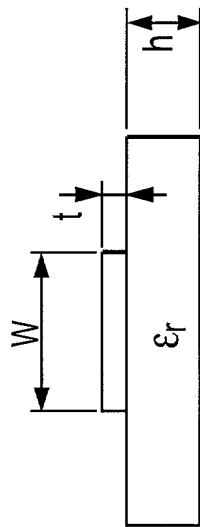
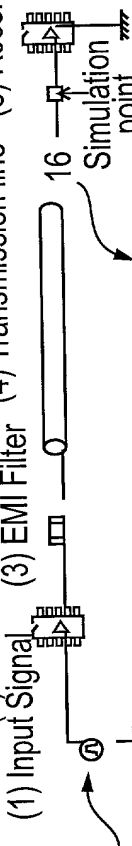


FIG. 4

Murata EMI Filter Selection Simulator - [Simulation No. 01]
 File(F) Simulation(S) Window(W) Help(H)

Simulation circuit

(1) Input Signal  10

(2) Transmitter IC

(3) EMI Filter (Murata products)

(4) Transmission line

(5) Receiver IC

Start simulation

Simulation point

12

14

20

22

Simulation parameters:

(1) Input Signal

- Clock frequency [MHz] [10]
- Duty ratio [%] [50]
- Rise time [nsec] [2]
- Fall time [nsec] [2]

(2) Transmitter IC

- ☒ Choose from IC list
- ☐ Specify IC output characteristics by entering LCR values
- IC type [CMOS]
- IC product code [74LVC04]

(3) EMI Filter (Murata products)

- ☒ Choose from list
- ☐ Specify by features
- BLM11 B1 51 SD (High speed signal line)
- Reset

(4) Transmission line

- ☒ Specify by features
- ☐ Enter characteristic impedance value
- ☐ Disregard transmission line
- Line width [mm] [0.1]
- Substrate thickness [mm] [1.6]
- Line length [mm] [100]
- Substrate material [Glass epoxy ($\epsilon=4.6$)]
- Characteristic impedance [ohm] [169.74]

(5) Receiver IC

- ☒ Choose from IC list
- ☐ Specify IC output characteristics by entering LCR values
- IC type [CMOS]
- IC product code [74AC04]

Murata Manufacturing Co. Ltd.


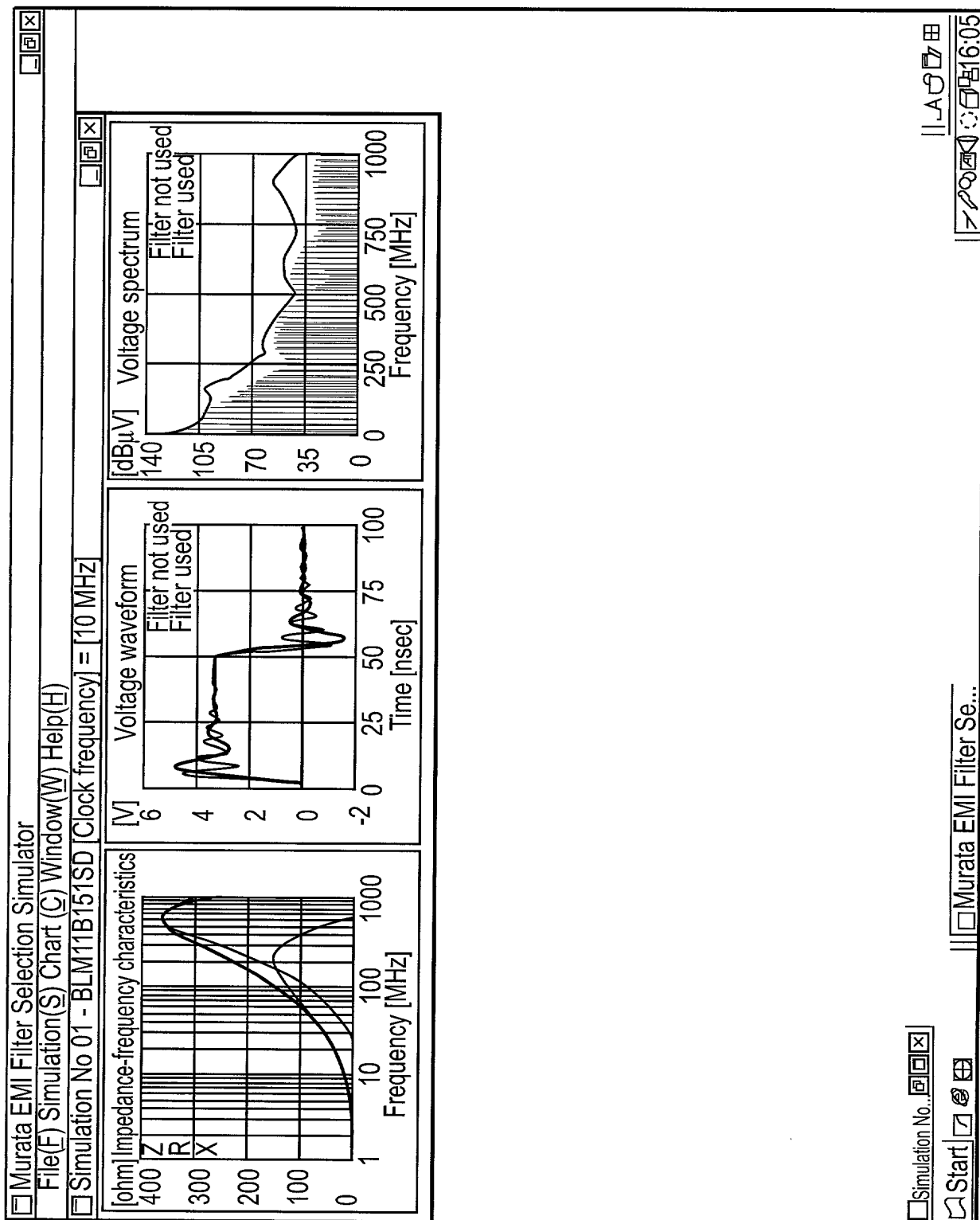
Start |  | 16:04

FIG. 5





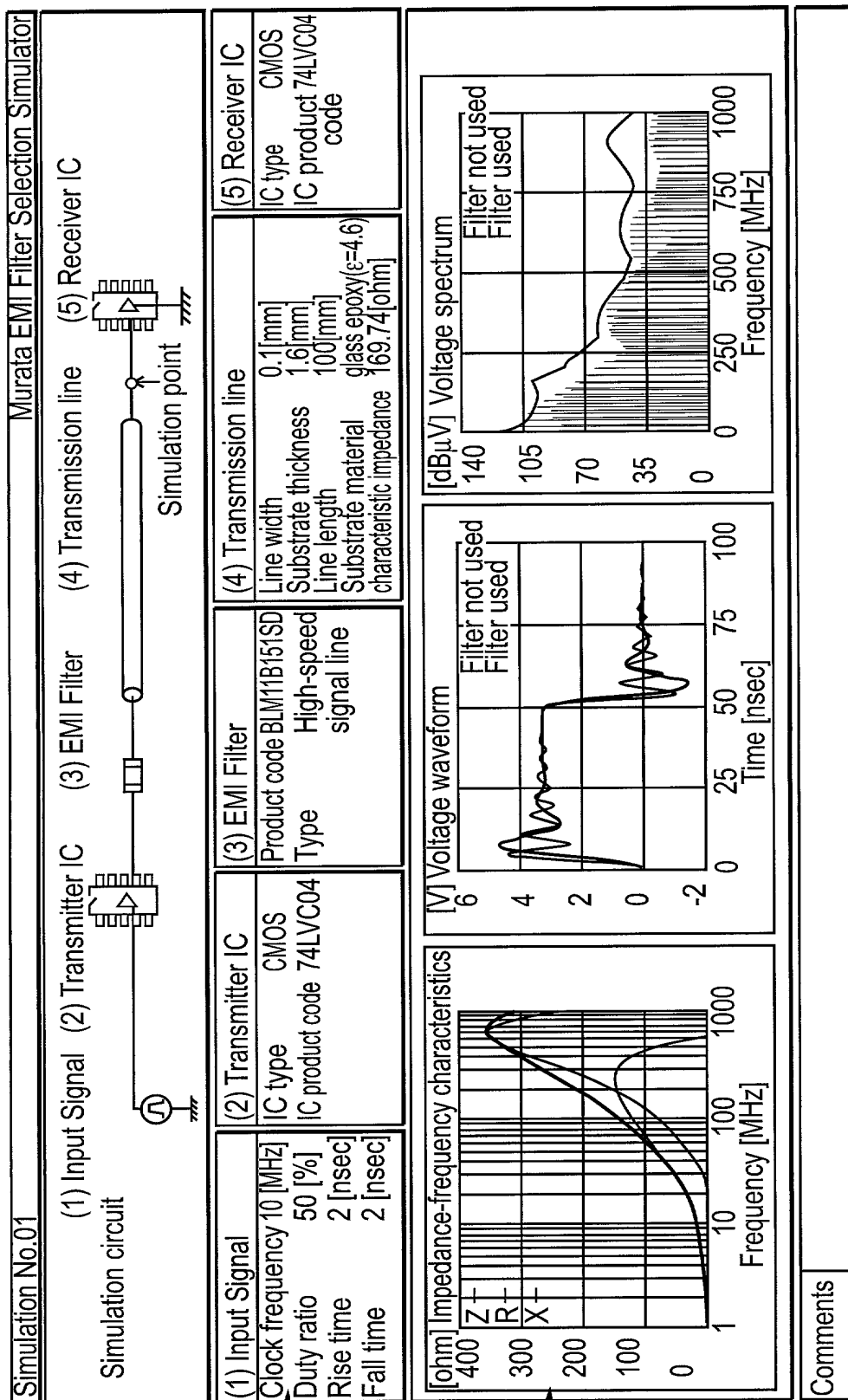


FIG. 8